

APTEK AP110-20S

Gigabit Ethernet Media Converter

The **APTEK AP110-20S** is a high-performance Gigabit Ethernet Media Converter engineered for optical fiber transmission via high-speed Ethernet. This device effectively bridges the connection between twisted-pair network segments (10/100/1000Base-TX) and Gigabit fiber optic segments. It features a versatile SFP Slot, offering flexibility to support various fiber types, distances, and wavelengths (e.g., Multi-Mode, Single-Mode, BiDi, etc.) by simply installing the appropriate SFP module. The **APTEK AP110-20S** is capable of meeting the demands of high-bandwidth Ethernet workgroup users over long distances, ensuring reliable remote interconnection at Gigabit speeds.



With steady performance and design integrity conforming to Ethernet standards, this converter is a preferred choice for building demanding networks, including metropolitan area networks (MANs), high-speed campus networks, and dedicated IP data transfer networks that require adaptability and robust data transmission capability.

Features:

- In accordance with Ethernet standards IEEE802.3 10/100Base-TX, 1000Base-TX and 1000Base-FX
- Supported Ports: SFP slot for optical fiber; RJ45 for twisted pair. Auto-adaptation rate and full/half-duplex mode supported at twisted pair port
- Auto MDI/MDIX supported without the need for cable selection
- Up to 6 LEDs for status indication of the optical power port and the UTP port
- External DC power supplies provided
- Conflicting frames detection in half-duplex and flow control in full duplex are supported

Applications:

- For the intranet prepared for expansion from 100M to 1000M
- For an integrated data network for multimedia such as image, voice and etc.
- For point-to-point computer data transmission
- For a computer data transmission network in a wide range of business applications
- For a broadband campus network, cable TV, and intelligent FTTB/FTTH data tape
- In combination with a switchboard or other computer network, it facilitates: chain-type, star-type and ring-type networks and other computer networks



Technical Parameters

Parameters	Value
Number of Network Ports	1 channel
Number of Optical Ports	1 channel
NIC Transmission Rate	10/100/1000 Mbit/s
NIC Transmission Mode	10/100/1000M adaptive with support for automatic inversion of MDI/MDIX
Optical Port Transmission Rate	1000Mbit/s
Operating Voltage	5VDC
Overall Power	<3W
Network Ports	RJ45 port
Optical Specifications	Optical Port: based on SFP Module
	Working mode: based on SFP Module
	Wavelength: based on SFP Module
	Optical Power (dBm): based on SFP Module
	Receiving Sensitivity (dBm): based on SFP Module
	Transmission Range (km): based on SFP Module
Data Channel	IEEE802.3x and collision base backpressure supported
Working Mode	Full/half duplex supported
Transmission Rate	1000Mbit/s with error rate of zero

LED

LED	Status Meaning
PWR	"ON" means normal operation of DC 5V power supply adaptor
	"OFF" means no power or the device is broken
1000M	"ON" means the rate of the electric port is 1000Mbps
	"OFF" means the rate of the electric port is 10/100Mbps
LINK/ACT (FP)	"ON" means connectivity of the optical channel
	"FLASH" means data transfer in the channel
	"OFF" means non-connectivity of the optical channel
LINK/ACT (TP)	"ON" means connectivity of the electric circuit
	"FLASH" means data transfer in the circuit
	"OFF" means non-connectivity of the electric circuit
SD	"ON" means receives a valid optical data signal as its input
	"OFF" means no optical signal as its input
FDX/COL	"ON" means full duplex electric port
	"OFF" means half-duplex electric port



Operating Environment

Parameters	Value
AC/DC Power Adapter	Input 100-240VAC, 50/60Hz
	Output 5VDC
Operating Temperature	0°C to +50°C
Storage Temperature	-20°C to +70°C
Operating humidity (non-condensing)	5% to 90%